REMARKS/ARGUMENTS

Rejections Under 35 USC § 103(a)

The Office Action maintains the rejection of Claims 1–14 under 35 USC § 103(a) as being unpatentable over Dobrin (US 5,628,737) in view of Jameson, *et al.* (sic) (US 5,169,712)[1]. The Office Action admits that the Dobrin patent fails to disclose the use of a particulate filler material embedded in a polymeric film layer and asserts that the patent discloses all other aspects of the invention. Specifically, the Office action states that:

- The Dobrin patent discloses an absorbent article 20 (Figure 2) comprising a core region 74 and a chassis region 76 surrounding the core region.
- The article 20 is said to also comprise a laminate 95 which extends into both the core region and the chassis region to form a core backsheet and a chassis backsheet. The laminate 95 is said to comprise a polymeric film layer 26 (col. 6, lines 42-43) and a fibrous layer 90 (col. 9, lines 51-52). The laminate 95 is said to also comprise apertures 84 in the chassis region 76. The Office Action asserts that the apertures 84 give the chassis region 76 a higher degree of breathability than the core region 74, hence the MVTR in the core region 74 is asserted to be lower than the MVTR in the chassis region 76.

The Office Action goes on to state that the Tapp reference discloses a breathable laminate comprising a polymeric film layer and a fibrous layer (col. 4, lines 39–42, 60 and 61). The polymeric film layer is said to: 1) have a basis weight greater than 25 gsm (col. 16, lines 29–32), 2) comprise a polymeric matrix and a particulate filler material (col. 6, lines 65–68) and 3) enhance breathability by the formation of cracks around the particulate filler material (col. 13, lines 15–18). The Office Action goes on to conclude that it would have been obvious to construct the laminate of Dobrin using the polymeric film layer of Tapp to increase breathability of the laminate.

Responding to the Applicants' amendment describing the cracks as being formed by an activation process in Paper No. 20, the Examiner further asserts that the Tapp reference discloses a laminate comprising a multiplicity of corrugations due to embossing. The disclosure at col. 25, lines 1–14 is cited as support.

In response, the Applicants respectfully traverse the rejection and direct the Examiner to Claim 1 as amended in Paper No. 20. The Applicants submit that, contrary to the assertions

[1] US 5,169,712 was issued to Tapp on December 8, 1992 and has been previously cited in this case. The Applicants assume that the Examiner intends to continue to use this reference.

of the Office Action, an article combining the teachings of the Dobrin, *et al.* patent and the Tapp reference fails to establish a *prima facie* case of obviousness because the combination fails to teach or suggest all of the limitations of Claim 1 as amended (MPEP § 2143.03). The Applicants respectfully submit that the combination of Dobrin and Tapp fails to make a *prima facie* case of obviousness with respect to Claim 1 as amended for at least the following reasons:

- The combination fails to teach or suggest an article where the breathability is provided by cracks formed around particulate filler material, where at least a portion of the cracks are formed using an activation process where the laminate is passed through at least one roll pair, where the roll pair comprises engaging ridges and grooves which provides a multiplicity of corrugations to at least a portion of said laminate. The Office Action relies on Tapp to provide breathability by the formation of cracks around a particulate material. However, as the Applicants have previously noted, the Tapp reference clearly teaches that the cracks are formed by stretching the material (col. 11, lines 19–28). The Tapp reference further teaches that such stretching can be accomplished either by longitudinal stretching by rolls or transverse stretching by a tenter (col. 11, line 28). The Office Action attempts to overcome the lack of teaching of crack formation by an activation process that uses engaging ridges and grooves by stating that the Tapp reference discloses a multiplicity of corrugations due to embossing. However, the Applicants submit that the thermal embossing process described by the Tapp reference would not result in crack formation for at least the reasons cited below. As background, a portion of the Tapp reference (col. 24, line 59–col. 25, line 25), which includes the citation in the Office Action, is reproduced herein:

  > In the thermal bonding process, a heated (emphasis added) calender is used comprising heated rolls between which are passed the individual layers of the composite to be bonded. The calender rolls can be made from steel, steel wool and the like and can have working widths up to 3 m or greater and diameters which have the required stiffness and strength to correspond to the working width of the calender. The calender rolls can be oriented such that the composites can pass between the calender rolls in essentially a horizontal or a vertical direction. One or both rolls can have embossing patterns for point-bonding and can be maintained at a desired temperature by a heating means such as electrical heating, tempered-oil heating and the like. The bonding pattern of the embossing rolls can be a regular or intermitten (sic)

pattern. Typically, an intermittent pattern is used with the area of the composite surface occupied by bonds ranging from about 5 to 50 percent of the surface area, preferably about 10 to about 25 percent of the surface area. The bonding can be done as point bonding, continuous stripe-, or discontinuous stripe-bonding with the intent of the bonding being to keep the layers of the composites from delaminating, while at the same time not forming an overly stiff composite product. A thermal bonding process useful to form the composites of the present invention employs a calender with a hard steel, embossing roll and a hard steel, smooth roll with the embossing roll having an embossing pattern of 256 squares/in^2 with the squares angled diagonally such that the squares present a diamondlike appearance in the machine or cross-machine direction and with the bonding area representing a nominal 16% of the total surface area. For the present invention, thermal bonding is the preferred bonding process for ease of operation and utilization of typical existing equipment.

The Applicants submit that one of ordinary skill in the art would not be led to an article having breathability provided by a crack formation process involving activation by engaging ridges and grooves because the artisan would recognize that:

- there would be no crack formation by the thermal bonding process described in the Tapp reference because the thermal bonding process would not result in stretching of the laminated structure due to the face to face relationship of the embossments on the calender roll that is necessary for bonding (i. e. there would be no engagement of ridges and grooves to provide stretching for crack formation); and
- the film portion will at least become semi-molten due to the heating provided by the rolls in order to form the thermal bond with the nonwoven portion of the laminate so it would stretch and flow instead of failing at the interface with the particulate material so as to form cracks.

Net, an article combining the teachings of Dobrin and Tapp (Including a thermal bonding step as asserted by the Office Action) may have a visually corrugated appearance (expressly not admitted because a thermally bonded laminate would have a visually different appearance than a corrugated laminate) but the thermal bonding process used to produce the article not result in crack formation.

- The combination of the Dobrin patent and the Tapp reference fails to teach or disclose an absorbent article where both the core backsheet material and the chassis backsheet material are both breathable with different breathabilities in different regions where the breathability is provided by cracks in a polymeric layer. In response to the introduction of this claim limitation in Paper No. 16, the Examiner asserted, using col. 6, lines 35–42 as support, that that the laminate comprises a polymeric layer 26 that was vapor or gas permeable and that the fibrous layer 90 was also permeable. The Office Action attempts to equate permeable and breathable. The Applicants respectfully submit that they are not equivalent and respectfully direct the Examiner to Table 1 on page 10 which clearly shows a material can have a measurable MVTR yet not be breathable. The Applicants further direct the Examiner to col. 6, lines 42–45, noting that there is no description of the film described therein having any permeability, and submit that Dobrin's backsheet was non-permeable in the non-apertured zone 82 and permeable only in the apertured zone 84. This characterization is the most simple characterization of Dobrin's backsheet that is consistent with the disclosure of the reference as a whole (MPEP 2141.02–"A prior art reference must be considered in its entirety, i.e., as a whole, including provisions that would lead away from the claimed invention"). While the addition of the Tapp reference may overcome the lack of breathability of the core backsheet material, it fails to overcome the fact that breathability provided by crack formation in a laminate combining Dobrin and Tapp will be isotropic because breathability in Tapp is provided by homogeneously stretching the film (col. 11, lines 19–34). The Applicants respectfully point out that breathability in the present claims is provided by crack formation not by apertures so any difference in breathability between the core backsheet material and the chassis backsheet material cannot be attributed to providing breathability provided by crack formation via Tapp and breathability provided by apertures via Dobrin to the chassis backsheet material.

To summarize, The Applicants have shown above that the Office Action fails to establish a *prima facie* case of obviousness with respect to Claim 1 as amended. Therefore, the Applicants respectfully request reconsideration of the rejection of Claim 1, its withdrawal and that Claim 1 be allowed.

Regarding individual dependent claims, the Office Action repeats the specific grounds of rejection from Paper No. 19. For the sake of brevity the Applicants will not summarize them again and direct the Examiner to Paper No. 18.

The Applicants respectfully direct the Examiner to the amendment to Claim 1 made by Paper No. 20. The Applicants respectfully point out that Claims 2–14 depend therefrom, having all the limitations of the base claim. Therefore, all of dependent claims are, of necessity, allowable over the combination of Dobrin and Tapp. In particular, the amendment to Claim 1 adding the method of MVTR measurement clearly differentiates these claims from the article that may be created by a combination of Dobrin and Tapp. Given the amendment to Claim 1 and the dependency of Claims 2–14 therefrom, the Applicants respectfully request that the Examiner reconsider the rejection of Claims 2–14 over the combination of Dobrin and Tapp, withdraw it and allow the claims.

SUMMARY

All of the rejections in the Office Action have been discussed as have the distinctions between the cited references and the claimed invention. In light of the discussions contained herein, the Applicants respectfully request reconsideration of the rejections, their withdrawal, and allowance of all of the claims. Issuance of a Notice of Allowance at an early date is earnestly solicited.

Respectfully submitted,
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